

Amendments to the Claims:

A clean version of the entire set of pending claims (including amendments to the claims, if any) is submitted herewith per 37 CFR § 1.121(c)(3). This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently amended) A medical imaging system comprising:
acquisition means ~~2-intended-to-acquire~~ for acquiring a volume of ~~3D three-dimensional (3D)~~ digital data ~~3DV~~ comprising at least one object of interest ~~1₂~~;
means ~~[[4]]~~ for segmenting a region of interest comprising said object of interest ~~[[1]]~~ within said volume ~~3DV~~; of 3D data into a segmented region of interest;
means ~~[[3]]~~ for displaying a ~~2D two-dimensional (2D)~~ representation ~~2DR~~ of said volume ~~3DV of 3D data~~ and said segmented region of interest ~~RS₂~~;
means ~~[[5]]~~ for ~~calculating~~ determining a sub-regions map ~~CSR₁~~-CSR within said segmented region of interest ~~[[.]]~~; and
correction means ~~6-intended-to-exclude sub-regions from~~ for correcting the segmented said region of interest ~~by-means-of using~~ said sub-regions map ~~CSR₁~~-CSR.
2. (Currently amended) A ~~The~~ medical imaging system as claimed in Claim 1, ~~characterized in that wherein~~ said means ~~[[5]]~~ for ~~calculating-a determining the~~ sub-regions map comprise ~~sub-means 11 means~~ for calculating watersheds ~~intended to form a first sub-regions map CSR₁ within the segmented region of interest RS.~~
3. (Currently amended) A ~~The~~ medical imaging system as claimed in Claim 2, ~~characterized in that wherein~~ said means ~~[[5]]~~ for ~~calculating-a determining the~~ sub-regions map further comprise ~~sub-means 10 means~~ for calculating a map of distances CD, said ~~sub-means 11 means~~ for calculating watersheds ~~being-intended-to-form~~ forming the first sub-regions map ~~CSR₁ from based on~~ said map of distances CD.

4. (Currently amended) A ~~The~~ medical imaging system as claimed in Claim 2, characterized in that ~~wherein~~ said means for calculating ~~a determining the~~ sub-regions map ~~[[5]] further comprise merging sub-means 12 intended to merge means for merging~~ sub-regions of the first map ~~CSR₁ in order to form a second sub-regions map CSR.~~

5. (Previously Presented) A ~~The~~ medical imaging system as claimed in Claim 1, further comprising:
~~characterized in that it comprises control means [[7]] for enabling a user to select the~~
~~sub-regions to be excluded.~~

6. (Currently amended) A ~~The~~ medical imaging system as claimed in Claim 1, ~~characterized in that wherein~~ said system is able to update said means for displaying the 2D representation display updates which in order to take into account the effects of corrected segmented region of interest provided by the correction means.

7. (Currently amended) A ~~The~~ medical imaging system as claimed in Claim 1, further comprising:
labeling means [[8]] for labeling the sub-regions map CSR₁-CSR of the segmented region of interest RS.

8. (Currently amended) A device for correcting a segmented region RS, intended configured to be integrated in a medical imaging system ~~intended to acquire which acquires~~ a volume of data and to segment a region of interest around an object of interest ~~[[1]] within~~ said volume of data, said device comprising:

means [[5]] for calculating a sub-regions map CSR₁-CSR within the segmented region RS; and

collection correction means 6 intended to exclude for excluding sub-regions of said region of interest ~~RS by means of based on~~ said sub-regions map.

9. (Currently amended) A The medical imaging apparatus as claimed in Claim 1,
further comprising:

a medical imager comprising means 22 for forming [[a]] the volume of 3D digital data
representing an environment including an the object of interest 1, a medical imaging system
20as claimed in Claim 1.

10. (Currently amended) A method of correcting a segmented region of interest
derived from a volume of three-dimensional (3D) digital data comprising at least one object of
interest, the method comprising:

a step of calculating a regions map CSR₁, CSR within the segmented region RS₁; and
a correction step intended to exclude excluding sub-regions of the segmented region
RS by means of based on the sub-regions map CSR₁, CSR.

11. (Canceled)